

In the claims:

1. (Currently amended) A method of detecting the presence of a polypeptide in a sample using a detectable, recombinant virus expressing a ligand on its surface which specifically binds to the polypeptide, comprising:

contacting the sample with a ~~homogeneous~~ population of ~~a~~ the detectable, recombinant virus, each virus expressing on its surface ~~a~~ the ligand for the polypeptide; and

detecting binding of the virus to the sample, thus detecting the presence of the polypeptide in the sample.

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Currently amended) A method of detecting the presence of a selected polypeptide in a sample using a detectable, recombinant virus expressing a ligand on its surface which specifically binds to the polypeptide, comprising:

contacting the sample with a ~~homogeneous~~ population of ~~a~~ the detectable virus, each virus expressing on its surface ~~a~~ the ligand, wherein the ligand has been previously demonstrated to specifically bind the selected polypeptide; and

detecting binding of the virus to the sample, thus detecting the presence of the selected polypeptide in the sample.

6. (Cancelled)

7. (Cancelled)

8. (Cancelled)

9. (Currently amended) A method of detecting the presence of a selected cellular protein on the surface of a cell using a detectable, recombinant virus expressing a ligand on its surface which specifically binds to the polypeptide, comprising:

contacting the cell with a ~~homogeneous~~ population of ~~a~~ the detectable virus, each virus expressing on its surface ~~a~~ the ligand, wherein the ligand has been previously demonstrated to specifically bind to the selected cellular protein; and

detecting binding of the virus to the cell, thus detecting the presence of the selected cellular protein on the surface of the cell.

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Currently amended) A method of detecting the presence of a selected polypeptide in a sample using a detectable, recombinant bacteriophage expressing a ligand on its surface which specifically binds to the polypeptide, comprising:

contacting the sample with a ~~homogeneous~~ population of ~~a~~ the detectable bacteriophage, each bacteriophage expressing on its surface at least 10 copies of ~~a~~ the ligand for the selected polypeptide; and

detecting binding of the bacteriophage to the sample, thus detecting the presence of the selected polypeptide in the sample.

18. (Cancelled)

19. (Cancelled)
20. (Cancelled)
21. (Cancelled)
22. (Currently amended) A method of detecting the presence of a selected cellular protein on the surface of a cell using a detectable, recombinant bacteriophage expressing a ligand on its surface which specifically binds to the polypeptide, comprising:

contacting the cell with a ~~homogeneous~~ population of ~~a~~ the detectable bacteriophage, each bacteriophage expressing on its surface ~~a~~ at least 10 copies of ~~a~~ the ligand for the selected cellular protein; and

detecting binding of the bacteriophage to the cell, thus detecting the presence of the selected cellular protein on the surface of the cell.

23. -44. (Cancelled)
45. (Previously presented) The method of claim 1, wherein the virus is a bacteriophage.
46. (Previously presented) The method of claim 1, wherein the polypeptide is a cellular protein.
47. (Previously presented) The method of claim 1, wherein the sample is a clinical sample.
48. (Previously presented) The method of claim 5, wherein the virus is a bacteriophage.
49. (Previously presented) The method of claim 5, wherein the polypeptide is a cellular protein.
50. (Previously presented) The method of claim 5, wherein the sample is a clinical sample.
51. (Previously presented) The method of claim 9, wherein the virus is a bacteriophage.
52. (Cancelled)

- 53. (Previously presented) The method of claim 9, wherein the cellular protein is a receptor or channel protein.
- 54. (Previously presented) The method of claim 9, wherein the cellular protein is N-methyl D-aspartate receptor.
- 55. (Previously presented) The method of claim 9, wherein the cells are in culture.
- 56. (Previously presented) The method of claim 9, wherein the cells are in vivo.
- 57. (Previously presented) The method of claim 9, wherein the ligand expressed on the surface of the virus is selected from the group consisting of the peptide whose amino acid sequence is set forth as SEQ ID NO:2 and the peptide whose amino acid sequence is set forth as SEQ ID NO:3.
- 58. (Previously presented) The method of claim 17, wherein the bacteriophage expresses on its surface at least 100 copies of the ligand.
- 59. (Previously presented) The method of claim 17, wherein the bacteriophage expresses on its surface at least 400 copies of the ligand.
- 60. (Previously presented) The method of claim 17, wherein the polypeptide is a cellular protein.
- 61. (Previously presented) The method of claim 17, wherein the sample is a clinical sample.
- 62. (Previously presented) The method of claim 22, wherein the bacteriophage expresses on its surface at least 100 copies of the ligand.
- 63. (Previously presented) The method of claim 22, wherein the bacteriophage expresses on its surface at least 400 copies of the ligand.
- 64. (Cancelled)
- 65. (Previously presented) The method of claim 22, wherein the cellular protein is a receptor or channel protein.
- 66. (Previously presented) The method of claim 22, wherein the cellular protein is N-methyl D-aspartate receptor.
- 67. (Previously presented) The method of claim 22, wherein the cells are in culture.
- 68. (Previously presented) The method of claim 22, wherein the cells are in vivo.
- 69. (Previously presented) The method of claim 22, wherein the ligand expressed on the surface of the virus is selected from the group consisting of the

peptide whose amino acid sequence is set forth as SEQ ID NO:2 and the peptide whose amino acid sequence is set forth as SEQ ID NO:3.

- 70. (Previously presented) The method of claim 1 wherein the virus expresses on its surface at least 10 copies of the ligand.
- 71. (Previously presented) The method of claim 5 wherein the virus expresses on its surface at least 10 copies of the ligand.
- 72. (Previously presented) The method of claim 9 wherein the virus expresses on its surface at least 10 copies of the ligand.
- 73. (Previously presented) The method of claim 1 wherein the virus is a filamentous bacteriophage and the ligand is fused to phage coat protein pVIII.
- 74. (Previously presented) The method of claim 5 wherein the virus is a filamentous bacteriophage and the ligand is fused to phage coat protein pVIII.
- 75. (Previously presented) The method of claim 9 wherein the virus is a filamentous bacteriophage and the ligand is fused to phage coat protein pVIII.